(No Model.)

T. A. EDISON.

FITTING AND FIXTURE FOR ELECTRIC LAMPS.

No. 248,424. Patented Oct. 18, 1881.

Fig. 2

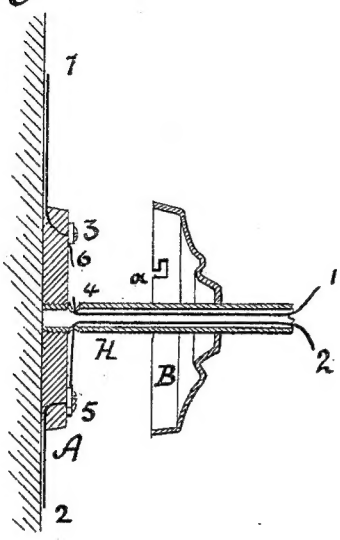


Fig. 1.

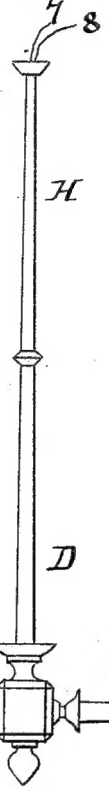
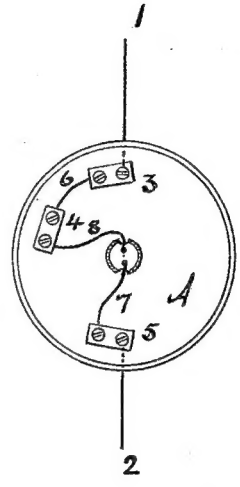


Fig. 3.



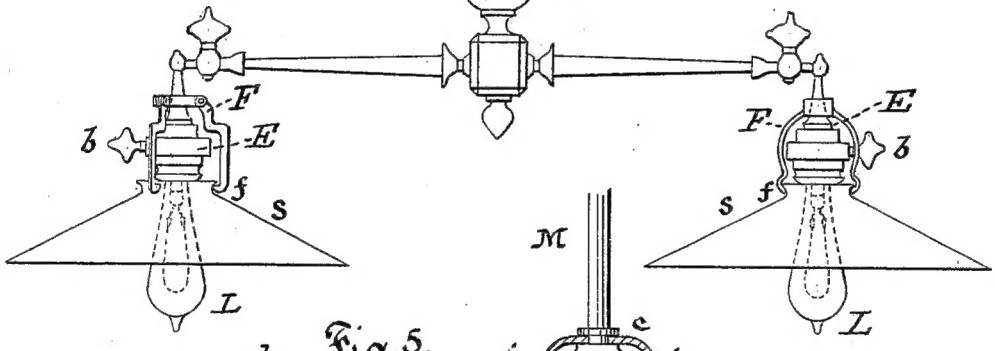
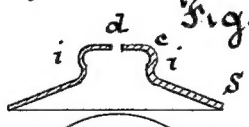


Fig. 5.



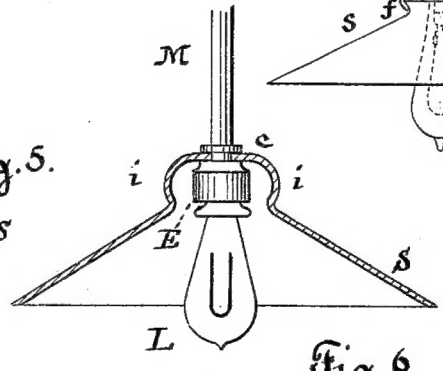


Fig 4

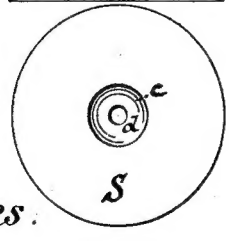


Fig 6

Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY, ASSIGNOR TO THE EDISON ELECTRIC LIGHT COMPANY, OF NEW YORK, N. Y.

FITTING AND FIXTURE FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 248,424, dated October 18, 1881.

Application filed March 26, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Fittings and Fixtures for Electric Lamps; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to improved means for hanging pendent electric lamps in an incandescent system, so that while applicable to a single lamp they may readily, when desired, be grouped into a chandelier.

As set forth in Patent No. 227,226, granted me May 4, 1880, it is desirable that there be interposed in the lamp-circuits pieces of conductors which are not affected by the current normally passing to a lamp, but which, when the lamp-circuit is short-circuited or in otherwise affected to permit an abnormal flow of current, melts, and so breaks its particular circuit—a device now sometimes called a "safety-catch."

One part of this invention relates to the arrangement of such a safety-catch in position to control the circuit of a pendent lamp, or of a group or chandelier thereof, and of the conductors leading to the lamp or chandelier in such way as that the connections are protected and the molten metal of the safety-catch caught by a removable ceiling. To this end, upon the ceiling or other support is fixed a base-piece arranged to receive and support the stem of the chandelier, and upon which are fastened the conductors, in one of which is inserted a small piece of safety-catch wire, preferably lead wire, and from which base the conductors pass to the interior of the lamp or chandelier standard. A struck-up or spun or cast metal cap, ornamented as desired, is made to fit over the base-piece, and to be held thereto by a bayonet lock and joint, there being an aperture in the center of the cap of a size sufficient to permit of it being slid up and down for a little distance upon the lamp or chandelier standard.

In an application of even date herewith is shown such an arrangement of the lamp neck and socket as will permit of the lamp being placed in any desired position relatively to the socket, in order that the lamp may be so placed in use that all shadow-producing portions are above the light-giving part. It is desirable when lamps are so used that the shade or reflector be so arranged that all its supporting mechanism does not interfere with the reflection of the light.

One part of this invention relates to such an arrangement, and the end may be attained as follows: A shade or reflector is used having a flange around the edge of its upper or smaller portion, on which takes the fingers of a spider suspended from the chandelier-arm; or a shade or reflector may be made, conical in shape and solid at the top except for a small opening, large enough to pass over the screw-threaded tip upon which the lamp-socket is to be secured. So made, the shade or reflector is slipped over the tip, and the socket screwed into place, the shade or reflector being nipped between the two and held in position, the lamp depending from the interior, and its light-giving part being below any shadow-producing portions.

In the drawings, Figure 1 is a view of a chandelier with dependent lamps, Fig. 2 a section of the base-piece and cap, Fig. 3 a plan view of the base-piece, Figs. 4 and 5 a plan and section of a shade or reflector, and Fig. 6 a section of the same shade or reflector with the lamp in position.

In Figs. 2 and 3, A is the base-piece of insulating material to which the conductors 1 2 lead, 2 ending in a block, 5, to which one of the wires 7 of the chandelier is connected, so that a circuit, via 2 5 7, is made. 1 ends in a block, 3, while the other wire of the chandelier, 8, terminates in a block, 4, these blocks 3 4 being electrically connected to complete the other portion of the circuit by the bit of safety-catch wire, 6, which is preferably a lead wire. This base-piece has a central screw-threaded aperture to receive and support the stem H of the single lamp or chandelier, as the case may be.

B is an ornamental or plain cap of metal, made by any suitable process, and having a a central aperture, permitting it to be moved along the standard of the chandelier D. Bayonet catches or slots *a* are made at several points in the side of B, taking upon pins in the side of A, so as to hold it thereto, although any

other effective fastening may be used. The cap B thus hides and protects the connections upon the base-piece, and is in position to catch the molten metal should the safety-catch 6 ever be melted.

Attached to the arms of the chandeliers are lamps provided with necks and sockets, made as set forth in my application No. 298, of even date herewith, so that the lamps may be reversed, as shown.

Above the sockets are secured spiders F, with fingers *f*, rigid or spring in one case, pivoted in the other. The ends of these fingers *f* take under the flange at the top of the shades or reflectors S, and so support them from above.

In Figs. 4, 5, and 6 a shade or reflector is shown in which the flanged opening of the shades or reflectors in Fig. 1 is closed by material *c*, homogenous with and forming part of the shade or reflector, in the center of which is left the small aperture *i*, which takes over the end of the pipe M, and rests against the usual shoulder thereon. The socket E is then screwed upon the end of M, and holds S in place, as shown in Fig. 6. It is evident that S in this case may be made without the flange.

By such an arrangement as has herein been described the lamps and shades may be placed in any desired position, so that the light unimpaired by shadows may be thrown in the proper direction.

What I claim is—

1. The combination of a base-piece such as described, a lamp or chandelier standard, a safety-catch, and a cap covering the base-piece, substantially as set forth.

2. The combination of a base-piece secured to the wall or ceiling, a bracket or chandelier the stem of which is attached to said base-piece, an incandescing electric lamp or lamps supported by said bracket or chandelier, and a safety-catch and circuit-connections upon said base-piece, substantially as set forth.

3. The combination of a pendent incandescing electric lamp and a socket to which said lamp is removably attached, with an open flaring reflector supported by means attached to or above said socket, whereby the downward reflection of the light is uninterrupted and the lamp can be removed from and placed in said socket without disturbing the position of said shade or reflector, substantially as set forth.

4. The combination, with the downwardly-hanging arm of a bracket or chandelier, of a lamp-socket secured to said arm, a pendent incandescing electric lamp removably secured to said socket, and a shade or reflector supported by means surrounding the bracket or chandelier arm above said socket and resting upon said socket, substantially as set forth.

5. The combination, with the downwardly-hanging arm of a bracket or chandelier, of a lamp-socket secured to said arm, a pendent incandescing electric lamp removably secured to said socket, and a shade or reflector supported by means clamped between said socket and a shoulder or ring on said bracket or chandelier arm above said socket, substantially as set forth.

This specification signed and witnessed this 8th day of March, 1881.

THOS. A. EDISON.

Witnesses:
H. W. SEELEY,
S. D. MORO.